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ABSTRACT

A study was undertaken in Ireland to test the hypothesis that teachers' judgments of reading were a function not only of a child's actual reading ability but also of his or her socioeconomic status. The sample consisted of 28 primary school teachers and their 804 students. The teachers administered a reading test to their classes and at the same time completed a student evaluation form. A measure of each student's socioeconomic status was computed based on the father's occupation. The results indicated that while there was some evidence to support the hypothesized teacher bias when data from a large group of students were examined, there was little support for the hypothesis when the more meaningful procedure of carrying out analyses within individual classrooms was adopted. (FL)

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The Influence of Pupils' Social Class on Teachers Ratings of Reading Attainment

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Research demonstrating the positive relationship between social class and scholastic performance has been so well documented that there can be few teachers who do not know of its existence. A number of writers have expressed fears that teachers' familiarity with this research area may have undesirable effects in that it may lead teachers to exaggerate the importance of social class when assessing pupils' ability and performance.

Hargreaves (1972), for example, argues that

> Teachers read the results of educational researchers and know that working class pupils are likely to reach lower levels of attainment and behaviour in school than middle class pupils. The danger is that teachers may then use this knowledge to reinforce their conceptions of working class pupils. Research can thus facilitate the application of labels and the promotion of self-fulfilling prophesies (Hargreaves, 1972, pp. 29-30).

In relation to reading, Stein (1971) in the course of a wide ranging critique of what she sees as the failure of the New York City school system to deal effectively with the educational problems of poor and minority groups suggests that trainee teachers are first taught that no one can learn to read without first acquiring a "tangled web" of reading readiness requisites and secondly that as a result of the so called "culture of poverty" poor children are ill-equipped to master these prerequisites.

The two writers (Hargreaves and Stein) that have been cited are representative of a number of others who argue that teachers tend to exaggerate the importance of socio-economic status as a determinant of academic ability and performance. Hargreaves (1971) refers to the phenomenon as a "Sociological Myth" whereby teachers misinterpret the results of research on the importance of social class as a factor in school performance to mean that (a) if a child comes from a "bad home" this is sufficient explanation for any educational problems he or she encounters and (b) because these environmental factors are beyond the school's control, there is little the teacher can do to rectify the situation. In this paper we examine the evidence for the so called sociological myth first by examining the relevant research literature and secondly by reporting on some analyses of data gathered from a sample of Irish primary school teachers.

There are ample studies showing a positive relationship between social class and the assessments teachers make of their pupils' ability and achievement, (e.g., Wilson, 1963; Rist, 1977). However in this respect teachers' assessments are no different from other measures of scholastic performance and these studies can not therefore be accepted as evidence of bias on the part of teachers against children of low socio-economic status.

A number of writers (e.g., Brophy and Good, 1974) use research on the effects of streaming as evidence of bias on the part of teachers. Studies such as those of Douglas (1964) and Mackler (1969) have shown that low S.E.S. children are assigned to low streams in greater numbers

than their measured performance would warrant and because these misplaced children are rarely promoted to higher streams their measured performance deteriorates relative to children who are correctly streamed on the basis of their initial performance. While these studies clearly reveal an undesirable consequence of streaming, it does not seem reasonable to explain the phenomenon solely in terms of the influence of teachers' beliefs about low S.E.S. children. Firstly because many factors other than teachers' assessments are taken into account in assigning children to streams and secondly because one can postulate that many peer and institutional pressures may operate to adversely affect the performance of a child who has been incorrectly assigned to a low stream.

There have been some attempts to investigate experimentally the influence of pupils' social class characteristics on teachers' judgements. Typically these studies involve presenting groups of teachers or student teachers with descriptions of hypothetical pupils in which information on social class characteristics is experimentally manipulated, while all other information on the pupil is held constant. This research area is relatively undeveloped and in many cases the effects of social class are compounded by those of ethnic origin. Nevertheless there are some indications that class related characteristics such as appearance (Clifford and Walster 1973) and speech styles (Seligman, Tucker and Lambert, 1971) are important determinants of teachers' judgements. Perhaps one of the most important and certainly one of the most frequently cited studies of bias in teachers' assessments is that of Rist (1970). In this longitudinal case study of a single elementary school in a black

ghetto in a North American city, Rist demonstrated that within eight days of their entry to school, pupils had been assigned to one of three groups ostensibly on the basis of academic potential but in fact, according to Rist, on the basis of socio-economic criteria such as neatness, personal hygiene and speech patterns. By observing the children in their classrooms Rist was able to show that the original groups were maintained and reinforced by the teachers' differential treatment of the high and low groups. While this study provides an interesting insight into the possible mechanisms by which teacher bias might operate, one would be reluctant to make any generalizations from a study which involved a single school in an untypical social context.

It is clear that although there has been considerable research using a variety of approaches and methodologies, the evidence on the existence of teacher bias remains equivocal. The work of Nash (1973) suggested to the authors a new and potentially useful approach to the problem. Nash, echoing the concerns of the writers cited at the beginning of the paper, contends that teachers' familiarity with research on the relationship between S.E.S. and attainment leads them to take social class into account when assessing the ability and attainment of their pupils. He argues that such an application of research findings is inappropriate in the sense that although there is a positive association between social class and performance among large groups of pupils it is unlikely that a similar relationship would be observed within the smaller group of pupils with whom an individual teacher is concerned and who are, according to Nash, more homogeneous with respect to social class than the

more representative groups on whom research findings are based. The value of Nash's contribution to the debate lies in the fact that his thesis presents us with a formulation of the sociological myth hypothesis, which is readily testable. He is suggesting that if the inter-relationships between S.E.S., a teacher's judgements of attainment and objective measures of attainment such as standardized tests were studied at the level of individual classrooms one would expect to find a significantly positive relationship between S.E.S. and the teachers' assessment of attainment while there should be little or no relationship between S.E.S. and the objective measure. In the present paper we shall be testing this formulation of Nash's hypothesis in relation to reading as well as examining the more general assertion inherent in many of the studies we have reviewed that teachers' judgements of reading are a function not only of the child's actual reading ability but also of his or her socio-economic status.

METHOD

Sample: The teachers who provided data for the present study were a sub-sample of the Standard 2 teachers participating in the study of the consequences of educational testing (Kellaghan, Madaus and Airasian, 1980). The sample was selected in two stages. The first stage sample was selected by stratifying the population of Irish primary schools by location (city, town and rural) and sex served (boys, girls, and mixed) and by randomly choosing 15 schools in each of seven of the nine resulting strata. (At the time the sample was originally drawn there were very few city and town schools serving both boys and girls).

The second stage sample was drawn by listing all those standard-two teachers in the selected schools whose classes contained 15 or more pupils and selecting from this list a random sample of 28 teachers. These 28 classes contained 804 pupils in all. The elimination of small classes from the sample was necessary in view of the intention to conduct separate statistical analyses within each class. Since small classes tend to be found mainly in rural schools, the final sample was biased in favour of teachers from non-rural schools.

Instruments:

1. Measured reading attainment. The test used was the Drumcondra English Test, Level I, Form A. This test yields a total reading score made up of scores on vocabulary, reading comprehension and word analysis subtests.

2. Teachers' assessment of reading. This was obtained in response to a request to teachers to rate their pupils' general progress in English reading on a five point scale from very poor to excellent. The rating scale was contained on a pupil evaluation form which also included items dealing with other pupil characteristics.

3. Socio-economic status. A measure of the S.E.S. of each pupil was computed based on father's occupation, information on which was obtained from teachers on the previously mentioned pupil evaluation form. Occupations were assigned to one of the following seven categories: professional/managerial, white collar, farmer with more than fifty acres,

skilled worker, unskilled worker, farmer with less than fifty acres, and finally unemployed or occupation unknown. This classification is widely used in this country by commercial marketing research firms (Irish Marketing Surveys, 1978).

Procedure: Teachers administered the reading test to their pupils in the middle of the first term of the school year and returned the test material to the Educational Research Centre for scoring. At around the same time the teachers completed the pupil evaluation form containing the rating of reading and the information on father's occupation.

RESULTS

An analysis of covariance was performed to test, in its simplest form, the hypthesis that teacher ratings of pupils' progress in English reading are a function not only of the pupils' actual reading attainment but also of their socio-economic status. In this analysis, the measure of the pupils' socio-economic status, described above, was used as the independent variable, the teacher rating of progress in English reading was used as the dependent variable, and performance on the Drumcondra test of reading attainment was used as the covariate. This analysis revealed a significant relationship between socio-economic status and teacher rating of reading progress even after controlling for measured reading attainment, (see Table 1) and could therefore be taken as "primae facie" evidence for the "Sociological Myth" hypothesis.

Table 1: Teacher rating of progress in English Reading as a function of socio-economic status, controlling for measured English reading attainment.

Source of Variation	SS	df	MS	F	p
Covariate	268.08	1	268.08	407.49	.001
Indep. variable	9.84	5	1.97	2.99	.011
Residual	524.99	798	0.65		
Total	802.92	804	0.99		

It can be argued, however, that such an analysis does not directly address the hypothesis of interest in that it is premised on the implicit assumption that the phenomenon behaves in the same way for each teacher, so that data from different classrooms may be treated as a single sample for the purpose of statistical manipulation. In reality the phenomenon of interest might more properly be considered as an attribute of the individual teacher, with the individual class as the appropriate level of analysis. Accordingly the covariance analysis reported above, was performed separately for each of the 28 classes in the sample. These separate analyses are summarised in Table 2, which indicates that only two of the 28 teachers provided data which could be said to support the sociological myth hypothesis.

A slightly different approach, still using the class as the unit of analysis, is to compute the correlation between socio-economic status and teacher rating of reading progress, and the correlation between socio-economic status and reading attainment score for each class, and to plot one set of correlations against the other. The two sets of correlations are shown in Table 3, and the plot is shown in Figure 1. According to our hypothesis the correlation between socio-economic status and teacher rating should exceed the correlation between socio-economic status and attainment score. In Figure 1 the diagonal dotted line divides the plane into two regions. All points falling in the region above the line represent teachers whose ratings of reading progress correlated more highly with pupil socio-economic status than did the reading attainment

Table 2: Summary Table of covariance analyses for each teacher

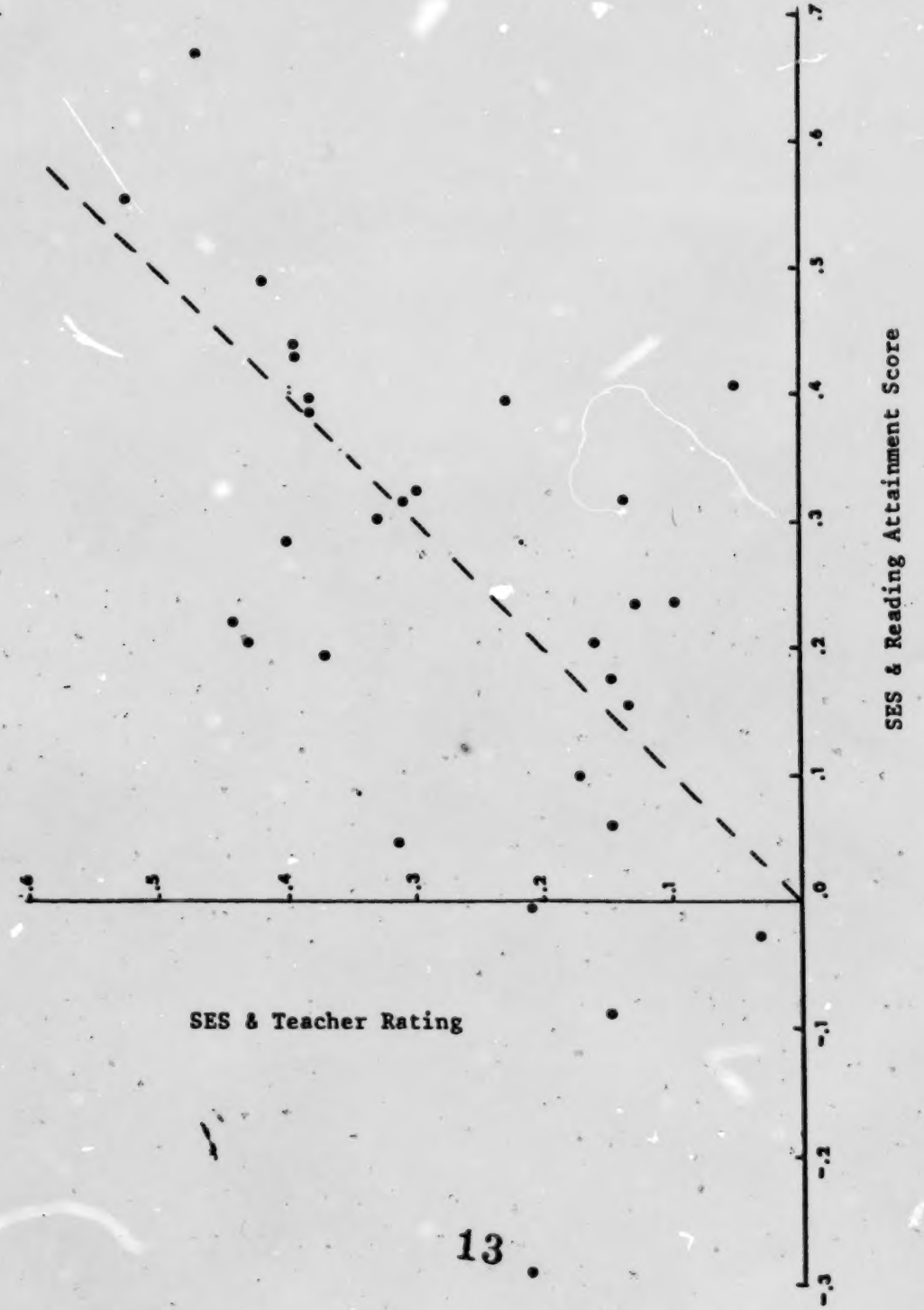
Teacher #	No. of Pupils	F-ratio	Probability
1	41	5.216	.010*
2	21	2.365	.122
3	32	1.163	.349
4	14	0.297	.873
5	24	2.671	.064
6	34	2.195	.094
7	27	0.677	.575
8	28	2.228	.111
9	30	1.260	.312
10	26	1.286	.304
11	42	1.379	.264
12	14	1.946	.187
13	26	0.463	.762
14	25	5.377	.003*
15	23	0.223	.922
16	13	0.585	.640
17	27	1.148	.360
18	21	0.135	.875
19	34	0.649	.590
20	36	1.196	.327
21	29	0.246	.864
22	36	0.316	.865
23	36	0.423	.658
24	30	1.624	.199
25	25	0.491	.692
26	32	0.815	.497
27	14	1.371	.318
28	36	0.583	.630

*Indicates analyses, which were significant at or beyond the 1% level

Table 3: Correlations between pupil socio-economic status and teacher rating of reading progress and reading attainment score

Teacher #	No. of Pupils	SES and Rating	SES and Test Score
1	41	.048	.317
2	21	.191	.372
3	32	.392	.385
4	14	.548	.525
5	24	.385	.381
6	34	.059	.146
7	27	.312	.142
8	28	.285	.405
9	30	-.004	.213
10	26	.426	.394
11	42	.230	.104
12	14	.402	.054
13	26	.296	.330
14	25	.428	.394
15	23	.312	.314
16	13	.666	.474
17	27	.169	.148
18	21	-.092	-.155
19	34	.323	.307
20	36	.237	.128
21	29	.207	.163
22	36	.392	.231
23	36	-.037	.035
24	30	.198	.432
25	25	.151	.137
26	32	.487	.422
27	14	-.298	.216
28	36	.095	.175

Figure 1: Within-class correlation between SES and teacher rating of reading progress plotted as a function of the correlation between SES and reading attainment score.



test scores, while points falling in the region below the line represent teachers whose ratings correlate less highly with socio-economic status than do the test scores. Most teachers fall quite near to this line, with just a few extreme cases either well above or well below the line. The impression that the data convey is that, insofar as the hypothesis is true, it is a feature of the behaviour of a small number of teachers (or classes) who are presumably atypical in some way.

The arguments of Nash (1973), from which we derived the hypotheses for the present study, appear to be based on the belief that the distribution of S.E.S. is much more homogeneous within individual classes than in the school going population as a whole. Furthermore it would seem to follow from Nash's reasoning that the sociological myth phenomemon is most likely to occur in classes where the S.E.S. distribution is markedly more homogeneous than the population distribution. An examination of the distribution of S.E.S. within the classes in the present study revealed considerable variety in the S.E.S. composition of individual classes. There was however little evidence of an overall trend towards greater homogeneity of S.E.S. within classes compared to the distribution of S.E.S. in the overall sample of pupils. Of the 28 classes in the study, ten were found to have S.E.S. distributions indistinguishable from the S.E.S. distribution of the overall sample (using a chi-square test of association). These ten classes could be considered as microcosms of society insofar as S.E.S. distribution is concerned. The eighteen classes which did not resemble the overall sample showed no clear trend towards greater or lesser homogeneity. These classes were merely different.

In an attempt to relate the shape of the within-class S.E.S. distribution to a tendency on the part of the teacher to place too much emphasis on socio-economic status as an indication of reading progress, a cross-classification was made between those teachers who fell above and below the cutoff line in Figure 1 on one hand, and those teachers whose classes resembled the overall sample in S.E.S. distribution and those whose classes did not on the other (see Table 4). The data in Table 4 show no evidence of an association between within class S.E.S. distribution and tendency to pay too much attention to socio-economic status in rating reading progress.

Table 4 No. of teachers showing evidence of a "sociological myth" rating phenomenon compared with no. of teachers whose class SES distributions resembled the total sample distribution

		Evidence of "Sociological Myth" Yes	No	Total
SES distribution like overall sample?	Yes	8	10	18
	No	5	5	10
	Total	13	15	28

In other words there was no evidence of a bias on the part of teachers against low S.E.S. pupils even in classrooms where on the basis of the S.E.S. distribution, one would be most likely to find such a bias.

Discussion

This paper dealt with an assertion that has frequently been made in the educational literature - that teachers who are acquainted with the research on the relationship between scholastic performance and socio-economic status will tend to exaggerate the importance of home background as a determinant of individual pupil performance and will become prey to the so-called sociological myth. Previous research in the area was reviewed and found to have yielded findings which were somewhat ambiguous in relation to the existence of the sociological myth phenomenon.

The results of new analyses reported in the present paper indicate that while there was some evidence for the hypothesised teacher bias when data from a large group of pupils were examined, there was little or no support for the hypothesis when the more meaningful procedure of carrying out analyses within individual classes was adopted.

Before dismissing the fears of those who feel that teachers may place undue emphasis on S.E.S. when assessing their pupils, a number of points need to be made. Firstly, the sample used here, although very satisfactory by comparison with other studies in the area, is nevertheless small and somewhat unrepresentative in that it contains a disproportionate number of teachers in urban schools. It could be argued, of course, that this latter fault in the sample would be likely to increase rather than decrease the probability of finding support for the hypothesis.

A second area where this study is open to criticism is in relation to our measure of socio-economic status. It is probably true that insofar

as teachers react to the home backgrounds of their pupils, they are most likely to react to more subtle features of the home than the occupation of the father. Therefore although father's occupation is generally regarded as an adequate proxy for more sophisticated measures of home environment (Warner, Meeker, and Eells, 1949) it may not have been sufficiently sensitive to detect the phenomenon under investigation.

A serious problem with this paper is that it involved an attempt to test an hypothesis which was formulated in the context of the British and American educational systems and tested in the rather different Irish context. This raises the possibility that some of the circumstances which gave rise to the hypothesis in Britain and the United States do not apply in this country. For example, it might be argued that Irish teachers have had less exposure to research on S.E.S. differences than their counterparts in other countries. It may be that if sociology becomes a more important element in the education of teachers in Ireland and if there is a more widespread dissemination of research findings then Irish teachers may well become more susceptible to the sociological myth.

Although no empirical support for the phenomenon was found in the present study, the authors feel that the sociological myth remains a valuable concept in that it, at least, alerts us to the existence of a problem, which it may be possible to prevent. It is undoubtedly true that there is a danger that teachers and others may misinterpret the results of sociological research in ways which may lead to an exaggeration of the importance of home background as a determinant of academic performance. It is equally true that teachers' assessments of their pupils should, as

far as possible, be based on educational and psychological criteria rather than an economic or demographic criteria such as socio-economic status.

The conventional wisdom in present-day educational literature poses a dilemma for teachers. On the one hand they are urged to acquaint themselves with the environmental conditions in which their pupils live so that they can respond sympathetically to any problems which may arise (Kellaghan and O hUalachain, 1973). On the other hand teachers are being warned against using any information they may have on home background in making judgements about pupils. Clearly teachers are expected to maintain a difficult and delicate balance between the two types of admonitions. The evidence from this paper indicates that Irish primary teachers are successfully maintaining this balance.

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